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L Number	Hits	Search Text	DB	Time stamp
1	109	Hallenbeck.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:08
2	2	Hallenbeck.in. and e2f	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:08
3	2	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj5 (promoter) same ITR and (termination or polyadenylation or "poly(A)" or poly adj A) and (adenoviral or adenovirus or viral) and cancer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:26
5	173	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) and (promoter) same ITR and (termination or polyadenylation or "poly(A)" or poly adj A) and (adenoviral or adenovirus)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:31
4	3	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj5 (promoter) same ITR and (termination or polyadenylation or "poly(A)" or poly adj A) and (adenoviral or adenovirus)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:30
6	42	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) and (promoter) same ITR same (termination or polyadenylation or "poly(A)" or poly adj A) and (adenoviral or adenovirus)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:37
7	12	oncolytic adj5 vector	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 16:48
8	26	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) and (promoter) same ITR same (termination or polyadenylation or "poly(A)" or poly adj A) same (ela or elb or e4 or e2 or replication) and (adenoviral or adenovirus)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 16:31
9	1	((e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) and (promoter) same ITR same (termination or polyadenylation or "poly(A)" or poly adj A) same (ela or elb or e4 or e2 or replication) and (adenoviral or adenovirus)) and (oncolytic adj5 vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 16:29
10	23	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) and (promoter) same ITR same (termination or polyadenylation or "poly(A)" or poly adj A) same (ela or elb or e4 or e2 or replication) same (adenoviral or adenovirus)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 16:34

11	10	oncolytic and E2f	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 16:49
12	3	oncolytic and E2f and polyadenylation	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 16:49
-	2	"10081969"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:08
-	4255	(adenoviral or adenovirus) adj vector	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 15:14
-	12590	(adenoviral or adenovirus or viral) adj vector	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:19
-	51	oncolytic and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:20
-	8	e2f and (oncolytic and ((adenoviral or adenovirus or viral) adj vector))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:20
-	349	e2f and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:20
-	51	(e2f adj5 promoter) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:21
-	1	(e2f adj5 promoter) same (termination or polyadenylation)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:26
-	20	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) same (termination or polyadenylation)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:43
-	97	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) and (termination or polyadenylation) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:51
-	147	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) and (termination or polyadenylation or poly(A) or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 16:50

-	51	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) same (termination or polyadenylation or poly(A) or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 17:10
-	38	((e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) same (termination or polyadenylation or poly(A) or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)) and cancer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/06 15:18
-	2	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) same (termination or polyadenylation or "poly(A)" or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 17:14
-	103	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) and (termination or polyadenylation or "poly(A)" or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 17:18
-	73	((e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) and (termination or polyadenylation or "poly(A)" or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)) and cancer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 17:18
-	1	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) same ITR and (termination or polyadenylation or "poly(A)" or poly adj A) and ((adenoviral or adenovirus or viral) adj vector)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 17:21
-	2	(e2f or E2F-1 or dihydrofolate adj reductase or DHFR or DNA adj polymerase adj A or DPA or c-myc or c adj myc or B-myb or B adj myb) adj2 (promoter) and ITR and (termination or polyadenylation or "poly(A)" or poly adj A) and ((adenoviral or adenovirus or viral) adj vector) and replication adj5 gene	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/03/05 17:31

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NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
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NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
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now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
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NEWS 25 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
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NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002  
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT  
NEWS 32 Nov 25 More calculated properties added to REGISTRY  
NEWS 33 Dec 02 TIBKAT will be removed from STN  
NEWS 34 Dec 04 CSA files on STN  
NEWS 35 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date  
NEWS 36 Dec 17 TOXCENTER enhanced with additional content  
NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN  
NEWS 38 Dec 30 ISMEC no longer available  
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NEWS 40 Jan 21 NUTRACEUT offering one free connect hour in February 2003  
NEWS 41 Jan 21 PHARMAML offering one free connect hour in February 2003  
NEWS 42 Jan 29 Simultaneous left and right truncation added to COMPENDEX,  
ENERGY, INSPEC  
NEWS 43 Feb 13 CANCERLIT is no longer being updated  
NEWS 44 Feb 24 METADEX enhancements  
NEWS 45 Feb 24 PCTGEN now available on STN  
NEWS 46 Feb 24 TEMA now available on STN  
NEWS 47 Feb 26 NTIS now allows simultaneous left and right truncation  
NEWS 48 Feb 26 PCTFULL now contains images  
NEWS 49 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results  
  
NEWS EXPRESS January 6 CURRENT WINDOWS VERSION IS V6.01a,  
CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
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FILE 'MEDLINE' ENTERED AT 16:57:02 ON 06 MAR 2003

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=> s adenovirus and (promoter (A5) ITR (a5) (polyadenylation or polyA or "poly(A)" or termination)) and (e2f or
DHFR or DPA or c-myc or B-myb)
MISSING OPERATOR 'PROMOTER (A5)'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.
```

=> d ibib abs 1-2

L1 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2002:676177 CAPLUS  
DOCUMENT NUMBER: 137:211937  
TITLE: Construction of adenoviral vectors containing  
insulating sequence for minimization of leaky  
therapeutic gene expression  
INVENTOR(S): Gorziglia, Mario; Hallenbeck, Paul L.; Kaleko,  
Michael; Clarke, Lori; Phipps, Sandrina  
PATENT ASSIGNEE(S): Novartis A.-G., Switz.  
SOURCE: PCT Int. Appl., 41 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002068627	A2	20020906	WO 2002-US5280	20020222
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TZ, TN, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2001-270885P P 20010223  
AB The present invention relates to adenoviral vectors and their use in methods of gene therapy. The present invention provides novel viral vectors and methods useful for the minimization of leaky gene expression, and, in particular, of nonspecific transcriptional read-through of genes.

Such constructs may be obtained by the insertion of an insulating sequence into a vector construct, such as for example a termination signal sequence upstream of the transcription initiation site of the resp. transcription unit. Provided is a recombinant viral vector comprising an adenoviral nucleic acid backbone, wherein said nucleic acid backbone comprises in sequential order: a left ITR, a termination signal sequence, an E2F-1 promoter which is operably linked to a gene essential for replication of the recombinant viral vector, an adenoviral packaging signal, and a right ITR.

L1 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:675779 CAPLUS

DOCUMENT NUMBER: 137:210924

TITLE: Oncolytic adenoviral vectors expressing therapeutic genes for the treatment of cancer

INVENTOR(S): Ennist, David Leonard; Forry-Schaudies, Suzanne; Gorziglia, Mario; Hallenbeck, Paul L.; Hay, Carl M.; Jakubczak, John Leonard; Kaleko, Michael; Ryan, Patricia Clara; Stewart, David A.; Xie, Yuefeng; Connelly, Sheila; Police, Sehirdhar Reddy; Clarke, Lori; Phipps, Sandrina; Cheng, Cheng

PATENT ASSIGNEE(S): Novartis Pharma A.-G., Switz.

SOURCE: PCT Int. Appl., 226 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002067861	A2	20020906	WO 2002-US5300	20020222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:				
			US 2001-270922P	P 20010223
			US 2001-295037P	P 20010601
			US 2002-348670P	P 20020114

AB The present invention relates to oncolytic adenoviral vectors and their use in methods of gene therapy. Provided is a recombinant viral vector comprising an adenoviral nucleic acid backbone, wherein said nucleic acid backbone comprises in sequential order: a left ITR, a termination signal sequence, an E2F responsive promoter which is operably linked to a gene essential for replication of the recombinant viral vector, an adenoviral packaging signal, and a right ITR. The adenoviral vectors may also comprise a polynucleotide encoding a cytokine such as GM-CSF that can stimulate a systemic immune response against tumor cells. The preferred vector Ar6pAE2fF comprises an adenovirus vector that uses a fragment of the human E2F-1 promoter to selectively regulate E1A expression and thus adenoviral replication in tumor cells. Ar6pAE2fF selectively kills Rb-pathway defective tumor cells over normal primary cells, and is preferentially replicated in human tumor cell lines vs. normal primary cells. This vector has a superior early toxicity profile to the non-selective replication competent virus, Addl327, when administered i.v. in SCID mice and provides advantages in efficacy, selectivity, and safety as compared to the oncolytic viral vector Addl1520. Ar17pAE2fTrtex is a particularly preferred, tumor-selective oncolytic adenovirus designed for the treatment of a broad range of cancer indications involving the two most common alterations in human cancer, namely defects in the Rb-pathway and overexpression of telomerase. Ar17pAE2fTrtex utilizes a E2F-1 promoter to control expression of the adenoviral E1A gene and the adenoviral E4 gene is controlled by a hTERT (human telomerase reverse transcriptase) promoter. Ar17pAE2fTrtex is expected to replicate in the majority of cancer cells, lead to tumor selective expression of toxic viral proteins, cytolysis, and enhancement of sensitivity to chemotherapy, cytokines, and cytotoxic T lymphocytes.

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FILE 'MEDLINE, CAPLUS' ENTERED AT 16:57:02 ON 06 MAR 2003

L1 2 S ADENOVIRUS AND (PROMOTER (S) ITR (S) (POLYADENYLATION OR POLY

FILE 'STNGUIDE' ENTERED AT 17:00:27 ON 06 MAR 2003

FILE 'MEDLINE, CAPLUS' ENTERED AT 17:01:16 ON 06 MAR 2003

=> s adenovirus and (promoter (s) ITR (s) (polyadenylation or polyA or "poly(A)" or termination))  
 L2 8 ADENOVIRUS AND (PROMOTER (S) ITR (S) (POLYADENYLATION OR POLYA  
 OR "POLY(A)" OR TERMINATION))

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 L3 7 DUP REMOVE L2 (1 DUPLICATE REMOVED)

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 L4 5 L3 AND PY<=2001

=> d ibib abs 1-5

L4 ANSWER 1 OF 5 MEDLINE  
 ACCESSION NUMBER: 1999373450 MEDLINE  
 DOCUMENT NUMBER: 99373450 PubMed ID: 10441562  
 TITLE: Transcription map and expression of bovine herpesvirus-1  
 glycoprotein D in early region 4 of bovine  
 adenovirus-3.  
 AUTHOR: Baxi M K; Babiuk L A; Mehtali M; Tikoo S K  
 CORPORATE SOURCE: Veterinary Infectious Disease Organization, University of  
 Saskatchewan, Saskatoon, Saskatchewan, S7N 5E3, Canada.  
 SOURCE: VIROLOGY, (1999 Aug 15) 261 (1) 143-52.  
 Journal code: 0110674. ISSN: 0042-6822.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals



ENTRY MONTH: 199909  
ENTRY DATE: Entered STN: 19990925  
Last Updated on STN: 19990925  
Entered Medline: 19990907

AB Early region 4 (E4) of bovine adenovirus type 3 (BAV-3) was analyzed by Northern blotting, RT-PCR analysis, cDNA sequencing, and S1 nuclease protection assays. The transcriptional map of the E4 region of BAV-3 has marked dissimilarities from those of mouse adenovirus -1, ovine adenovirus-287, and human adenovirus-2, for which the transcriptional maps have been constructed. The E4 region of BAV-3, located between 98.6 and 89.8 MU transcribes seven distinct classes of bovine adenovirus type 3 mRNA. The seven mRNA species formed by the removal of one to three introns share both the 3' end and a short 5' leader (25 nucleotides). The E4 mRNAs can encode at least five unique polypeptides, namely, 143R1, 69R, 143R2, 268R, and 219R. Isolation of a replication-competent recombinant "BAV404" containing 1.9-kb insertion [glycoprotein (gD) of bovine herpesvirus 1, under the control of a SV40 early promoter and poly(A)] in the region between E4 and the right ITR suggested that this region is nonessential for BAV-3 replication. Expression of gD by BAV404 recombinant virus was confirmed by immunoprecipitation with gD-specific monoclonal antibodies. Analysis of the kinetics of protein expression indicated that gD is expressed at both early and late times postinfection. These results suggest that: (a) E4 produces seven 5'-3' coterminal mRNAs and (b) the right terminal region of BAV-3 can be used for the expression of vaccine antigens.  
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L4 ANSWER 2 OF 5 MEDLINE  
ACCESSION NUMBER: 90223999 MEDLINE  
DOCUMENT NUMBER: 90223999 PubMed ID: 2183470  
TITLE: High level expression of the envelope glycoproteins of the human immunodeficiency virus type 1 in presence of rev gene using helper-independent adenovirus type 7 recombinants.  
AUTHOR: Chanda P K; Natuk R J; Mason B B; Bhat B M; Greenberg L; Dheer S K; Molnar-Kimber K L; Mizutani S; Lubeck M D; Davis A R; +  
CORPORATE SOURCE: Biotechnology and Microbiology Division, Wyeth-Ayerst Research, Philadelphia, Pennsylvania 19101.  
SOURCE: VIROLOGY, (1990 Apr) 175 (2) 535-47.  
Journal code: 0110674. ISSN: 0042-6822.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199005  
ENTRY DATE: Entered STN: 19900622  
Last Updated on STN: 19970203  
Entered Medline: 19900523

AB The effect of rev (art/trs) gene on the level of HIV-1 envelope (env) expression using recombinant adenovirus was investigated. Recombinant adenoviruses expressing either the envelope or the rev gene of the human immunodeficiency virus type 1 (HIV-1) were constructed by inserting the gene into an expression cassette. The expression cassette contained the adenovirus type 7 major late promoter, followed by leader 1 of the adenovirus tripartite leader and a portion of intron between leaders 1 and 2, leaders 2 and 3, and a hexon polyadenylation signal. The cassette was then inserted at the terminal region between the E4 and ITR regions of the adenovirus 7 genome with a concomitant E3 region deletion (80-87 m.u.). A549 cells infected with the recombinant virus containing the env gene produced the envelope glycoproteins gp160, gp120, and gp41. HIV-1 envelope gene expression was greatly enhanced (20- to 50-fold) in the cells that were simultaneously infected with the recombinant adenovirus containing the rev gene as measured by ELISA and Western blotting. Interestingly, this effect was observed despite the lack of the 5' down splice site for rev and seems to be post-transcriptional. Another recombinant adenovirus which contains both the rev and the env genes was constructed by inserting the rev gene in the deleted E3 region and the env gene in the terminal cassette. This double recombinant virus expressed high levels of env antigen in A549 cells similar to those attained upon co-infection with two separate recombinant viruses containing the rev or env gene. Furthermore, the rev gene nucleotide sequence could be altered without altering the amino acid sequence and its sequences truncated by 17 amino acids from the C-terminus had no effect of rev function.

L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1999:72000 CAPLUS

DOCUMENT NUMBER: 130:135015  
 TITLE: Cloning vectors for producing adenoviral minimal viruses  
 INVENTOR(S): Hillgenberg, Moritz; Loser, Peter; Schnieders, Frank; Sandig, Volker; Strauss, Michael  
 PATENT ASSIGNEE(S): Hepavec A.-G. fur Gentherapie, Germany  
 SOURCE: PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9902647	A2	19990121	WO 1998-DE1940	19980706 <--
WO 9902647	A3	19990415		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19744768	A1	20000803	DE 1997-19744768	19971010 <--
DE 19744768	C2	20020411		
EP 1003895	A2	20000531	EP 1998-944984	19980706 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
JP 2001509375	T2	20010724	JP 2000-502148	19980706 <--
PRIORITY APPLN. INFO.: DE 1997-19729571 A 19970710				
DE 1997-19744768 A 19971010				
WO 1998-DE1940 W 19980706				

AB The invention relates to cloning vectors for producing adenoviral minimal viruses, consisting of: a) two adenoviral inverted terminal repeats (ITRs) which are flanked by ab) two restriction sites with a recognition sequence more than 8 bp in length, and enclose ac) an adenoviral packaging signal, ad) a multiple cloning site for inserting therapeutic DNA fragments into which non-coding mammalian chromosomal DNA may addnl. be cloned, ae) (optionally) a recognition site for a recombinase situated between one of the ITRs and the adenoviral packaging signal, and af) (optionally) a reporter gene cassette; b) a bacterial plasmid backbone with replication origin and bacterial resistance gene, into which ba) a packaging signal of a bacteriophage is cloned. Thus, minimal adenoviral vector cloning plasmid pMVX-Bg was created. This plasmid consists of an adenovirus 5' 5'-ITR, a human chromosomal stuffer, a Rouse sarcoma virus promoter linked to a lacZ gene and an SV40 polyA sequence, an adenovirus 5' 3'-ITR, an I-SceI restriction site, an ampR gene, a cos site, and another I-SceI restriction site.

L4 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:605015 CAPLUS  
 DOCUMENT NUMBER: 129:198915  
 TITLE: Expression vector for the permanent expression of foreign DNA  
 INVENTOR(S): Grummt, Ingrid; Grummt, Friedrich  
 PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung des Offentlichen Rechts, Germany  
 SOURCE: PCT Int. Appl., 10 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9837209	A2	19980827	WO 1998-DE539	19980224 <--
WO 9837209	A3	19981126		
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19707273	C1	19980924	DE 1997-19707273	19970224 <--
EP 968296	A2	20000105	EP 1998-914811	19980224 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
JP 2001512320	T2	20010821	JP 1998-536164	19980224 <--
US 6300126	B1	20011009	US 1999-367927	19991020 <--
PRIORITY APPLN. INFO.: DE 1997-19707273 A 19970224				
WO 1998-DE539 W 19980224				

AB The present invention relates to an expression vector for expressing foreign DNA. Said DNA at its 3' end has a sequence which prevents the replication of the expression vector from occurring in the opposite direction to the transcription of said expression vector. The invention also relates to a prepn. contg. such an expression vector and to the use of both in the permanent expression of foreign DNA in cells. Thus,

expression vector pAAV-ADA, comprising adeno-assocd. virus 5'- and 3'- ITRs, mouse metallothionein promoter, human adenosine deaminase cDNA, SV40 poly A sequence, and a replication fork barrier, was prepd. COS cells infected with adenovirus and expressing AAV rep and cap genes were used to prep. virus particles. Infection of cells with these virus particles led to permanent expression of the ADA gene.

L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:324646 CAPLUS  
DOCUMENT NUMBER: 122:153378  
TITLE: Adenoviral vectors containing DNA encoding human lung surfactant protein  
INVENTOR(S): Trapnell, Bruce; Whitsett, Jeffrey  
PATENT ASSIGNEE(S): Genetic Therapy, Inc., USA; University of Cincinnati  
SOURCE: PCT Int. Appl., 42 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9423582	A1	19941027	WO 1994-US3831	19940407 <--
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2160136	AA	19941027	CA 1994-2160136	19940407 <--
EP 701401	A1	19960320	EP 1994-914075	19940407 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09500782	T2	19970128	JP 1994-523310	19940407 <--
PRIORITY APPLN. INFO.:			US 1993-44406	19930408
			WO 1994-US3831	19940407

AB Adenoviral vectors contg. a DNA sequence encoding a lung surfactant protein are described. The adenoviral vector may be a replication-deficient adenoviral vector which is free of at least the majority of the E1 and E3 DNA sequences. Thus, the recombinant adenoviral vector AV1SPB1 contg. human surfactant protein B (SPB) cDNA was constructed through homologous recombination between the adenovirus 5 deletion mutant Ad-d1327 and plasmid pAVS6SPB#7. Ad-d1327 has a deleted E3 region in which base pairs 28,593-30,470 are absent. Plasmid pAVS6SPB#7 contains an adenoviral 5'-ITR, an origin of replication contained completely within the 5'-ITR, an E1a enhancer and encapsidation signal, a Rous sarcoma virus promoter, and adenovirus 5' tripartite leader sequence, and the 2-kb human SPB cDNA including the entire protein coding sequence (nucleotides 1-1172), and the SV40 poly(A) signal. Such vectors may be employed for generation of infectious viral particles which may transduce lung epithelial cells in vivo to enable the expression of surfactant protein by such cells. The adenoviral vectors can treat lung surfactant protein deficiency states such as infant respiratory distress syndrome or adult respiratory distress syndrome.

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